LINKSYS® by Cisco

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CISCO ™

About This Guide

Icon Descriptions

While reading through the User Guide you may see various icons that call attention to specific items. Below is a description of these icons:

NOTE: This check mark indicates that there is a note of interest and is something that you should pay special attention to while using the product.

WARNING: This exclamation point indicates that there is a caution or warning and it is something that could damage your property or product.

WEB: This globe icon indicates a noteworthy website address or e-mail address.

Online Resources

Website addresses in this document are listed without **http://** in front of the address because most current web browsers do not require it. If you use an older web browser, you may have to add **http://** in front of the web address.

Resource	Website
Linksys	www.linksys.com
Linksys International	www.linksys.com/international
Glossary	www.linksys.com/glossary
Network Security	www.linksys.com/security

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Chapter 1: Product Overview

Thank you for choosing the Linksys ADSL2 Gateway with 4-Port Switch, the all-in-one solution for Internet connectivity in your home. The internal ADSL modem function gives you an Internet connection that is far faster than a dial-up and does not tie up your phone line. Connect your computers to the Gateway via the built-in 4-port 10/100 Ethernet Switch to jump start your home network. Attach four computers directly, or connect more hubs and switches to create as big a network as you need. The Gateway ties it all together and lets your whole network share that high-speed Internet connection. To protect your data and privacy, an advanced firewall keeps Internet intruders and attackers out, and wireless transmissions can be protected by powerful data encryption. Safeguard your family with Parental Control features like Internet Access Time Limits and Key Word Blocking. Configuration is a snap with any web browser. With the Linksys ADSL2 Gateway with 4-Port Switch at the heart of your home network, you're connected to the future.

Front Panel

Power (Green) The Power LED lights up when the Gateway is powered on.

Ethernet 1-4 (Green) The Ethernet LED lights up when the Gateway is connected to a device through the Ethernet port. If the LED is blinking, the Gateway is sending or receiving data over that port.

DSL (Green) The DSL LED lights up when there is a successful DSL commection. The LED blinks while establishing the ADSL connection.

Internet (Green/Red) The Internet LED lights up green when an Internet connection to the Internet Service Provider (ISP) is established. The LED lights up red when the connection to the ISP fails.

Back Panel

LINE The LINE port connects to the ADSL line.

Ethernet 1-4 The Ethernet ports connect to your computer and other Ethernet network devices.

Reset The Reset button is used to restore the Gateway's factory default settings. To do so, press the Reset button for approximately ten seconds using a pin or straightened paper clip. The factory defaults can also be restored via the *Administration > Factory Defaults* screen of the Gateway's web-based utility.

Power The Power port is where you will connect the power adapter.

On/Off This switch is used to turn the Gateway on or off.

Chapter 2: Configuration

Follow the steps in this chapter to use the Gateway's web-based utility to configure the Gateway. This chapter describes each web page in the Utility and each page's key functions. The utility can be accessed via a web browser from a computer connected to the Gateway. For a basic network setup, most users only have to use the following screens of the Utility:

*   **Basic Setup** On the *Setup > Basic Setup* screen, enter the Internet connection settings provided by your Internet Service Provider (ISP).

*   **Management** On the *Administration > Management* screen, change the Gateway's password from the default value (**admin**). Enter a new password in the *Password* and *Re-enter to confirm* fields.

There are six main tabs: Setup, Security, Access Restrictions, Applications & Gaming, Administration, and Status. Additional tabs appear after you click a main tab.

How to Access the Web-Based Utility

To access the web-based utility, launch your web browser, and enter the Gateway's default IP address, **192.168.1.1**, in the *Address* field. Then press **Enter**.

Internet Explorer Address Bar

The login screen will ask you for your User name and Password. Enter **admin** (the default user name) in the *User Name* field, and enter **admin** (the default password) in the *Password* field. Then click **OK**.
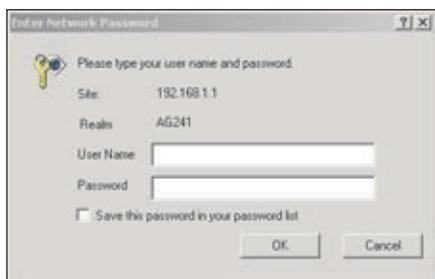
Login Screen

Use the Utility to make changes as needed. When you have finished making changes to a screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes. Help information is available on the right side of the screen.

The Setup Tab > Basic Setup

The *Basic Setup* screen is the first screen you see when you access the   web-based utility. This screen allows you to change the Gateway's general settings.
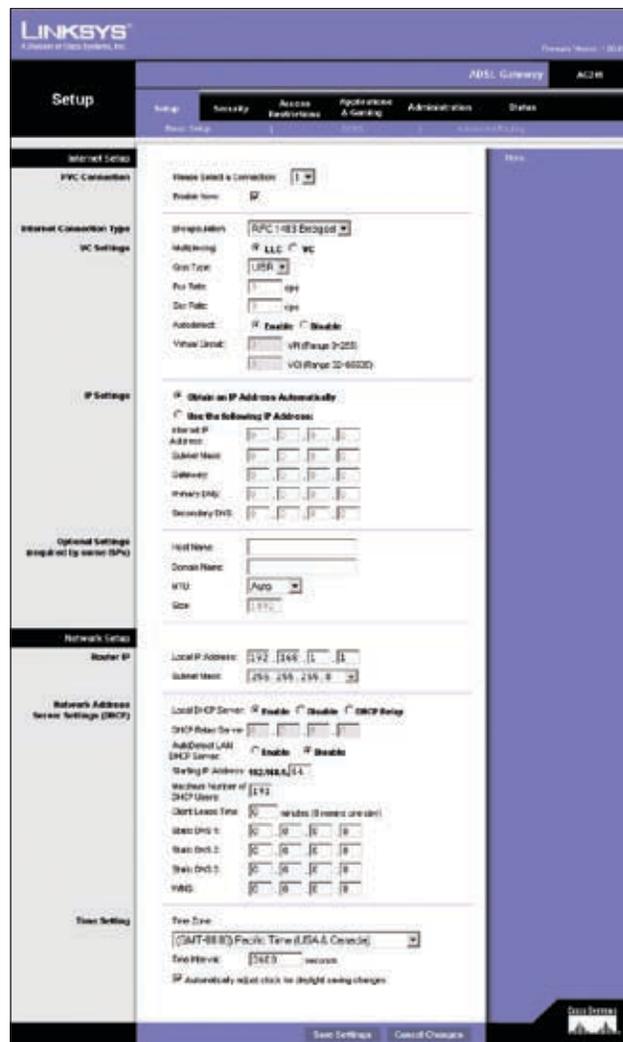
Setup > Basic Setup

Internet Setup

PVC Connection Select a PVC connection number from the drop-down menu. Then, select **Enable Now** to enable the connection.

VC Settings Virtual Circuits (VPI and VCI) These fields consist of two items: VPI (Virtual Path Identifier) and VCI (Virtual Channel Identifier). Your ISP will provide the correct settings for these fields.

*   **Multiplexing** Select **LLC** or **VC** , depending on your ISP.

*   **QOS Type** Select from the drop-down menu: **CBR**, Continuous Bit Rate to specify fixed bandwidth for voice or data traffic; **UBR**, Unspecific Bit Rate for application that are none-time sensitive, such as

email; or **VBR**, Variable Bite Rate for Bursty traffic and bandwidth sharing with other application.

- **Pcr Rate** Peak Cell Rate, divide the DSL line rate by 424 to find the PCR to get the maximum rate the sender can send cells. Enter the rate in the field (if required by your service provider).

- **Scr Rate** Sustain Cell Rate, sets the average cell rate that can be transmitted. SCR normally less than PCR. Enter the rate in the field (if required by your service provider).

- **Autodetect** Select **Enable** to have the settings automatically entered or **Disable** to enter the values manually.

- **Virtual Circuit** Enter the VPI and VCI ranges in the fields.

Internet Connection Type The Gateway supports five types of encapsulation:

- **RFC 1483 Bridged**

- **IPoA**

- **RFC 2516 PPPoE** If you are connected to the Internet through a DSL line, check with your ISP to see if they use PPPoE. If they do, , select this encapsulation type.

- **RFC 2364 PPPoA** If you are connected to the Internet through a DSL line, check with your ISP to see if they use PPPoA. If they do, select this encapsulation type.

- **Bridged Mode Only** Select this encapsulation if you are using your Gateway as a bridge, which makes the Gateway act like a standalone modem.

Each Basic Setup screen and available features will differ depending on what type of encapsulation you select.

RFC 1483 Bridged

Dynamic IP

Dynamic IP

IP Settings Select **Obtain an IP Address Automatically** if your ISP says you are connecting through a dynamic IP address.

Static IP

Static IP

IP Settings If you are required to use a permanent (static) IP address to connect to the Internet, then select **Use the following IP Address**.

- **Internet IP Address** This is the Gateway's IP address, when seen from the Internet. Your ISP will provide you with the IP Address you need to specify here.

- **Subnet Mask** This is the Gateway's Subnet Mask. Your ISP will provide you with the Subnet Mask.

- **Gateway** Your ISP will provide you with the default Gateway Address, which is the ISP server's IP address.

- **Primary DNS (Required) and Secondary DNS (Optional)** Your ISP will provide you with at least one DNS (Domain Name System) Server IP Address.

IPoA

IPoA

IP Settings If you are required to use RFC 1577 IPoA (Classical IP over ATM), then select **IPoA**.

- **IP Address** This is the Gateway's IP address, when seen from the Internet. Your ISP will provide you with the IP Address you need to specify here.

- **Subnet Mask** This is the Gateway's Subnet Mask. Your ISP will provide you with the Subnet Mask.

- **Default Gateway** Your ISP will provide you with the Default Gateway Address, which is the ISP server's IP address.

- **Primary DNS (Required) and Secondary DNS (Optional)** Your ISP will provide you with at least one DNS (Domain Name System) Server IP Address.

RFC 2516 PPPoE

RFC 2516 PPPoE

PPPoE Settings

- **Service Name** Enter the name of your PPPoE service.

- **User Name and Password** Enter the User Name and Password provided by your ISP.

- **Connect on Demand: Max Idle Time** You can configure the Gateway to drop the Internet connection after a predetermined period of inactivity (Max Idle Time), and to automatically re-establish the connection as soon as you attempt to access the Internet again (Connect on Demand). If you wish to activate this option, click the radio button next to this field, and in the *Max Idle Time* field, enter the number of minutes that are to elapse before your Internet connection will be terminated.

- **Keep Alive: Redial Period** If you select this option, the Gateway will periodically check your Internet connection and automatically re-establish your connection if you are not connected. To use this option, click the radio button next to this field, and in the *Redial Period* field, specify how often you want the Gateway to check the Internet connection. The default Redial Period is **30** seconds.

RFC 2364 PPPoA

RFC 2364 PPPoA

PPPoA Settings

- **User Name and Password** Enter the User Name and Password provided by your ISP.

- **Connect on Demand: Max Idle Time** You can configure the Gateway to drop the Internet connection after a predetermined period of inactivity (Max Idle Time), and to automatically re-establish the connection as soon as you attempt to access the Internet again (Connect on Demand). If you wish to activate this option, click the radio button next to this field, and in the *Max Idle Time* field, enter the number of minutes that are to elapse before your Internet connection will be terminated.

- **Keep Alive Option: Redial Period** If you select this option, the Gateway will periodically check your Internet connection and automatically re-establish your connection if you are not connected. To use this option, click the radio button next to the field, and in the *Redial Period* field, specify how often you want the Gateway to check the Internet connection. The default Redial Period is **30** seconds.

Bridged Mode Only

All NAT and routing are disabled in this mode.

Bridged Mode Only

Optional Settings

Some of these settings may be required by your ISP. Verify with your ISP before making any changes.

Optional Settings

Host Name and Domain Name These fields allow you to supply a host and domain name for the Gateway. Some ISPs require these names as identification. You may have to check with your ISP to see if your broadband Internet service has been configured with a host and domain name. In most cases, leaving these fields blank will work.

MTU The MTU (Maximum Transmission Unit) setting specifies the largest packet size permitted for network transmission. Select **Manual** and enter the value desired in the *Size* field. It is recommended that you leave this value in the 1200 to 1500 range. By default, MTU is configured automatically.

Network Setup

The Network Setup section allows you to change the Gateway's local network settings.

Network Setup

Router IP

The values for the Gateway's Local IP Address and Subnet Mask are shown here. In most cases, keeping the default values will work.

Local IP Address The default value is **192.168.1.1**.

Subnet Mask The default value is **255.255.255.0**.

Network Address Server Settings (DHCP)

A Dynamic Host Configuration Protocol (DHCP) server automatically assigns an IP address to each computer on your network for you. Unless you already have one, it is highly recommended that you leave the Gateway enabled as a DHCP server.

DHCP Relay Server If you enable the Local DHCP Server or DHCP Relay for the Local DHCP server, enter the IP address for the DHCP server in the fields.

AutoDetect LAN DHCP Server This feature allows clients to automatically detect a DHCP server on your local network. If you want to enable this feature, click **Enable**. Otherwise, click **Disable** to disable this feature.

Starting IP Address Enter a value for the DHCP server to start with when issuing IP addresses. This value must be 192.168.1. 2 or greater, because the default IP address for the Gateway is 192.168.1.1.

Maximum Number of DHCP Users Enter the maximum number of users/clients that can obtain an IP address. The number will vary depending on the starting IP address entered.

Client Lease Time The Client Lease Time is the amount of time a network user will be allowed connection to the Gateway with their current dynamic IP address. Enter the amount of time, in minutes, that the user will be "leased" this dynamic IP address.

Static DNS 1-3 The Domain Name System (DNS) is how the Internet translates domain or website names into Internet addresses or URLs. Your ISP will provide you with at least one DNS Server IP Address. You can enter up to three DNS Server IP Addresses here. The Router will use these for quicker access to functioning DNS servers.

WINS The Windows Internet Naming Service (WINS) converts NetBIOS names to IP addresses. If you use a WINS server, enter that server's IP address here. Otherwise, leave this field blank.

Time Setting

This is where you set the time zone for your Gateway. Select your time zone from the drop-down menu. If desired, check the **Automatically adjust clock for daylight saving changes** option.

When you have finished making changes to this screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Setup Tab > DDNS

The Gateway offers a Dynamic Domain Name System (DDNS) feature. DDNS lets you assign a fixed host and domain name to a dynamic Internet IP address. It is useful when you are hosting your own website, FTP server, or other server behind the Gateway.

Before you can use this feature, you need to sign up for DDNS service at DynDNS.org or TZO.com.

DDNS

DDNS Service If your DDNS service is provided by DynDNS.org, then select **DynDNS.org** from the drop-down menu. If your DDNS service is provided by TZO, then select **TZO.com**. The features available on the DDNS screen will vary, depending on which DDNS service provider you use. To disable DDNS Service, select **Disabled**.

DynDNS.org

Setup > DDNS > DynDNS.org

User Name, Password, Host Name Enter the user name, password, and host name of your DynDNS.org account.

Internet IP Address The Gateway's current Internet IP address is displayed here. Because it is dynamic, it will change.

Status The status of the DDNS service connection is displayed here.

TZO.com

Setup > DDNS > TZO.com

E-mail Address, Password, Domain Name Enter the e-mail address, TZO password key, and domain name of the service you set up with TZO.com.

Internet IP Address The Gateway's current Internet IP address is displayed here. Because it is dynamic, it will change.

Status The status of the DDNS service connection is displayed here.

When you have finished making changes to this screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Setup Tab > Advanced Routing

The *Advanced Routing* screen allows you to configure the dynamic and static routing settings.

Setup > Advanced Routing

Advanced Routing

Operating Mode

NAT NAT is a security feature that is **Enabled** by default. It enables the Gateway to translate IP addresses of your local area network to a different IP address for the Internet. To disable NAT, click the **Disabled** radio button.

Dynamic Routing

With Dynamic Routing you can enable the Gateway to automatically adjust to physical changes in the network's layout. The Gateway, using the RIP protocol, determines the network packets' route based on the fewest number of hops between the source and the destination. The RIP protocol regularly broadcasts routing information to other Gateways on the network.

RIP To enable RIP, click **Enabled**. To disable RIP, click **Disabled**.

DDNS Service Transmit RIP Version. To transmit RIP messages, select the protocol you want: **RIP1**, **RIP1-Compatible**, or **RIP2**.

Receive RIP Version To receive RIP messages, select the protocol you want: **RIP1** or **RIP2**.

Static Routing

If the Gateway is connected to more than one network, it may be necessary to set up a static route between them. A static route is a pre-determined pathway that network information must travel to reach a specific host or network. To create a static route, change the following settings:

- **Select Set Number** Select the number of the static route from the drop-down menu. The Gateway supports up to 20 static route entries. If you need to delete a route, after selecting the entry, click **Delete This Entry**.

- **Destination IP Address** The Destination IP Address is the address of the remote network or host to which you want to assign a static route. Enter the IP address of the host for which you wish to create a static route. If you are building a route to an entire network, be sure that the network portion of the IP address is set to 0.

- **Subnet Mask** The Subnet Mask determines which portion of a Destination IP address is the network portion, and which portion is the host portion.

- **Gateway** This is the IP address of the gateway device that allows for contact between the Adapter and the remote network or host.

- **Hop Count** This is the number of hops to each node until the destination is reached (16 hops maximum). Enter the Hop Count in this field.

Show Routing Table Click **Show Routing Table** to open a screen displaying how data is routed through your local network. For each route, the Destination IP address, Subnet Mask, Gateway, and Interface are displayed. Click **Refresh** to update the information. Click **Close** to return to the previous screen.

Advanced Routing > Routing Table

When you have finished making changes to this screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Security Tab > Firewall

The *Firewall* screen contains filters and an option to block WAN requests. Filters block specific Internet data types and block anonymous Internet requests.

Security > Firewall

Firewall

Firewall Protection To add Firewall Protection, click **Enable**. If you do not want Firewall Protection, click **Disable**.

Additional Filters

Filter Proxy Use of WAN proxy servers may compromise the Gateway's security. Denying Filter Proxy will disable access to any WAN proxy servers. To enable proxy filtering, click **Enabled**.

Filter Cookies A cookie is data stored on your computer and used by Internet sites when you interact with them. To enable cookie filtering, click **Enabled**.

Filter Java Applets Java is a programming language for websites. If you deny Java Applets, you run the risk of not having access to Internet sites created using this programming language. To enable Java Applet filtering, click **Enabled**.

Filter ActiveX ActiveX is a programming language for websites. If you deny ActiveX, you run the risk of not having access to Internet sites created using this programming language. To enable ActiveX filtering, click **Enabled**.

Block WAN Requests

Block Anonymous Internet Requests When enabled, this feature keeps your network from being "pinged," or detected, by other Internet users. It also hides your network ports. Both make it more difficult for outside users to enter your network. This filter is enabled by default. Select **Disabled** to allow anonymous Internet requests.

When you have finished making changes to this screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Security Tab > VPN

Virtual Private Networking (VPN) is a security measure that creates a secure connection between two remote locations. The *Security > VPN* screen allows you to configure your VPN settings to make your network more secure.
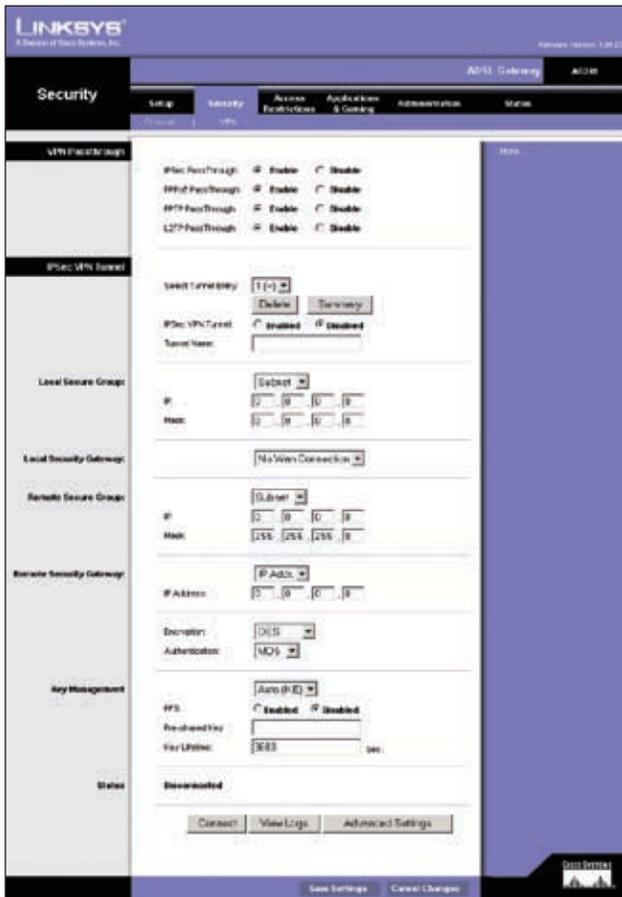
Security > VPN

VPN Passthrough

IPSec Passthrough Internet Protocol Security (IPSec) is a suite of protocols used to implement secure exchange of packets at the IP layer. To allow IPSec Passthrough, click **Enable**. To disable IPSec Passthrough, click **Disable**.

PPTP Passthrough Point-to-Point Tunneling Protocol Passthrough is used to enable VPN sessions to a Windows NT 4.0 or 2000 server. To allow PPTP Passthrough, click **Enable**. To disable PPTP Passthrough, click **Disable**.

L2TP Passthrough Layering 2 Tunneling Protocol Passthrough is used to enable the operation of a VPN over the Internet. To allow L2TP Passthrough, click **Enable**. To disable L2TP Passthrough, click **Disable**.

IPSec VPN Tunnel

The VPN Gateway creates a tunnel or channel between two endpoints, so that the data or information between these endpoints is secure.

To establish this tunnel, select the tunnel you wish to create in the *Select Tunnel Entry* drop-down box. It is possible to create up to five simultaneous tunnels. Then click **Enabled** to enable the IPSec VPN tunnel. Once the tunnel is enabled, enter the name of the tunnel in the *Tunnel Name* field. This is to allow you to identify multiple tunnels and does not have to match the name used at the other end of the tunnel. To delete a tunnel entry, select the tunnel, then click **Delete**. To view a summary of the settings, click **Summary**.

VPN Settings Summary

Local Secure Group and Remote Secure Group

The Local Secure Group is the computer(s) on your LAN that can access the tunnel. The Remote Secure Group is the computer(s) on the remote end of the tunnel that can access the tunnel. These computers can be specified by a Subnet, specific IP address, or range.

Local Security Gateway

Remote Security Gateway

The Remote Security Gateway is the VPN device, such as a second VPN Gateway, on the remote end of the VPN tunnel. Enter the IP Address or Domain of the VPN device at the other end of the tunnel. The remote VPN device can be another VPN Gateway, a VPN Server, or a computer with VPN client software that supports IPSec. The IP Address may either be static (permanent) or dynamic (changing), depending on the settings of the remote VPN device. Make sure that you have entered the IP Address correctly, or the connection cannot be made. Note that this is NOT the IP Address of the local VPN Gateway, but the IP Address of the remote VPN Gateway or device with which you wish to communicate. If you enter an IP address, only that specific IP Address will be able to access the tunnel. If you select **Any**, any IP Address can access the tunnel.

Encryption Using Encryption also helps make your connection more secure. There are two different types of encryption: **DES** (default) or 3DES (3DES is recommended because it is more secure). You may choose either of these, but it must be the same type of encryption that is being used by the VPN device at the other end of the tunnel. Or, you may choose not to encrypt by selecting **Disable**.

Authentication Authentication acts as another level of security. There are two types of authentication: **MD5** (default) and SHA (SHA is recommended because it is more secure). As with encryption, either of these may be selected, if the VPN device at the other end of the tunnel is using the same type of authentication. Or, both ends of the tunnel may choose to **Disable** authentication.

Key Management

Select **Auto (IKE)** or **Manual** from the drop-down menu. The two methods are described below.

Auto (IKE)

Select **Auto (IKE)** and enter a series of numbers or letters in the Pre-shared Key field. Based on this word, which MUST be entered at both ends of the tunnel if this method is used, a key is generated to scramble (encrypt) the data being transmitted over the tunnel, where it is unscrambled (decrypted). You may use any combination of up to 24 numbers or letters in this field. No special characters or spaces are allowed. In the Key Lifetime field, you may select to have the key expire at the end of a time period. Enter the number of seconds you'd like the key to be useful, or leave it blank for the key to last indefinitely. Check the box next to PFS (Perfect Forward Secrecy) to ensure that the initial key exchange and IKE proposals are secure.

Manual

Select **Manual**, then select the Encryption Algorithm from the drop-down menu. Enter the Encryption Key in the field (if you chose DES for your Encryption Algorithm, enter 16 hexadecimal characters, if you chose 3DES, enter 48 hexadecimal characters). Select the Authentication Algorithm from the drop-down menu. Enter the Authentication Key in the field (if you chose MD5 for your Authentication Algorithm, enter 32 hexadecimal characters, if you chose SHA1, enter 40 hexadecimal characters). Enter the Inbound and Outbound SPIs in the respective fields.

Manual Key Management

Status

The status of the connection is shown.

Click **Connect** to connect your VPN tunnel. Click **View Logs** to view system, UPnP, VPN, firewall, access, or all logs. Click **Advanced Settings** and the *Advanced IPSec VPN Tunnel Setup* screen will appear.

System Log

When you have finished making changes to the *Security* > *VPN* screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

Advanced VPN Tunnel Setup

From the *Advanced IPSec VPN Tunnel Setup* screen you can adjust the settings for specific VPN tunnels.

Advanced VPN Tunnel Setup

Phase 1

Phase 1 is used to create a security association (SA), often called the IKE SA. After Phase 1 is completed, Phase 2 is used to create one or more IPSec SAs, which are then used to key IPSec sessions.

Operation Mode There are two modes: Main and Aggressive, and they exchange the same IKE payloads in different sequences. Main mode is more common; however, some people prefer Aggressive mode because it is faster. Main mode is for normal usage and includes more authentication requirements than Aggressive mode. Main mode is recommended because it is more secure. No matter which mode is selected, the VPN Gateway will accept both Main and Aggressive requests from the remote VPN device.

Encryption Select the length of the key used to encrypt/decrypt ESP packets. There are two choices: DES and 3DES. 3DES is recommended because it is more secure.

Authentication Select the method used to authenticate ESP packets. There are two choices: MD5 and SHA. SHA is recommended because it is more secure.

Group There are two Diffie-Hellman Groups to choose from: 768-bit and 1024-bit. Diffie-Hellman refers to a cryptographic technique that uses public and private keys for encryption and decryption.

Key Life Time In the *Key Lifetime* field, you may optionally select to have the key expire at the end of a time period of your choosing. Enter the number of seconds you'd like the key to be used until a re-key negotiation between each endpoint is completed.

Phase 2

Encryption The encryption method selected in Phase 1 will be displayed.

Authentication The authentication method selected in Phase 1 will be displayed.

PFS The status of PFS will be displayed.

Group There are two Diffie-Hellman Groups to choose from: 768-bit and 1024-bit. Diffie-Hellman refers to a cryptographic technique that uses public and private keys for encryption and decryption.

Key Life Time In the *Key Lifetime* field, you may select to have the key expire at the end of a time period of your choosing. Enter the number of seconds you'd like the key to be used until a re-key negotiation between each endpoint is completed.

Other Setting

NAT Traversal

NetBIOS broadcast Check the box next to this field to enable NetBIOS traffic to pass through the VPN tunnel.

Anti-replay Check the box next to this field to enable the Anti-replay protection. This feature keeps track of sequence numbers as packets arrive, ensuring security at the IP packet-level.

Keep-Alive If you select this option, the Gateway will periodically check your Internet connection. If you are disconnected, then the Gateway will automatically re-establish your connection.

Check this box to block unauthorized IP addresses Enter in the field to specify how many times IKE must fail before blocking that unauthorized IP address. Enter the length of time that you specify (in seconds) in the field.

When finished making your changes to this screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Access Restrictions Tab > Internet Access

The *Internet Access* screen allows you to block or allow specific kinds of Internet usage. You can set up Internet access policies for specific computers and set up filters by using network port numbers.
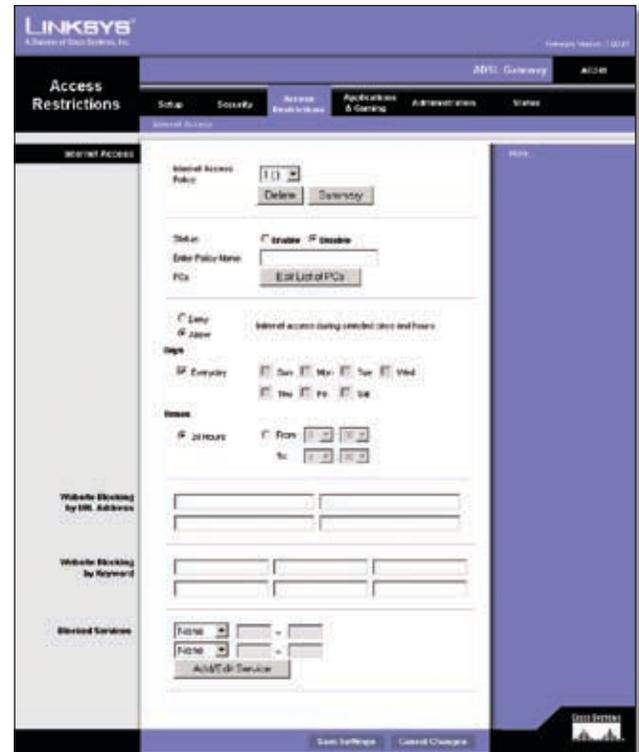
Access Restrictions > Internet Access

Internet Access

Internet Access Policy Multiple filters can be saved as Internet Access Policies. When you wish to edit one, select the number of the policy from the drop-down menu. The screen contents will reflect the settings of the currently selected policy. If you wish to delete the Policy, click **Delete**. To see a summary of all policies, click **Summary**.

Internet Access Policy > Summary

On the *Summary* screen, the policies are listed with the following information: No., Policy Name, Days, and Time of Day. To delete a policy, click the policy's check box and click **Delete**. To return to the *Internet Access Policy* screen, click **Close**.

Status Policies are disabled by default. To enable a policy, select the policy number from the drop-down menu, and click **Enabled**.

The remaining fields on the screen are used to create a new policy, or to display the settings of an existing policy.

To create a new Internet Access policy:

1. Select a number from the *Internet Access Policy* drop-down menu.

2. Enter a Policy Name in the *Enter Policy Name* field.

3. To enable this policy, click **Enable**.

4. Click **Edit List of PCs** to select which PCs will be affected by the policy. The *List of PCs* screen will appear. You can select a PC by MAC address or IP address. You can also enter a range of IP addresses if you want this policy to affect a group of PCs. After making your changes, click **Save Settings** to apply your changes or **Cancel Changes** to cancel your changes.
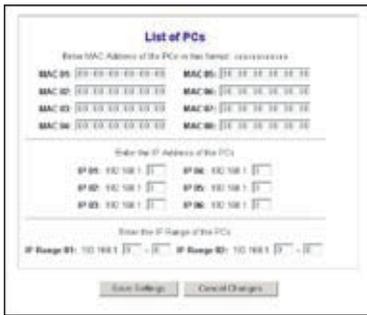
Internet Access Policy > List of PCs

5. Click the appropriate option, **Deny** or **Allow**, depending on whether you want to block or allow Internet access for the PCs you listed on the *List of PCs* screen.

6. Decide which days and what times you want this policy to be enforced. Select the individual days during which the policy will be in effect, or select **Everyday**. Then enter a range of hours and minutes during which the policy will be in effect, or select **24 Hours**.

7. You can block websites with specific URL addresses. Enter each URL in a separate field next to *Website Blocking by URL Address*.

8. You can also block websites using specific keywords. Enter each keyword in a separate field next to *Website Blocking by Keyword*.

9. You can filter access to various services accessed over the Internet, such as FTP or Telnet. (You can block up to two applications per policy.) Select a service from the drop-down menus next to *Blocked Services*. If the service you want is not listed, click **Add/Edit Service** to open the *Port Services* screen. The right side of this screen contains a list of services that you can choose.

Port Services

To add a new service to the list, enter the service's name in the *Service Name* field, enter the service's range in the *Port Range* fields, and select the service's protocol from the *Protocol* drop-down menu. Then click **Add**.

To modify a service, select it from the service list. Change its name, port range, and/or protocol setting as needed. Then click **Modify**.

To delete a service, select it from the service list. Then click **Delete**.

Click **Apply** to apply the current settings. Click **Close** to close the *Port Services* screen and return to the *Internet Access* screen. Click **Cancel** to cancel your changes.

When finished making your changes to the *Internet Access* screen, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Applications & Gaming Tab > Single Port Forwarding

The *Single Port Forwarding* screen provides options for customization of port services for common applications.
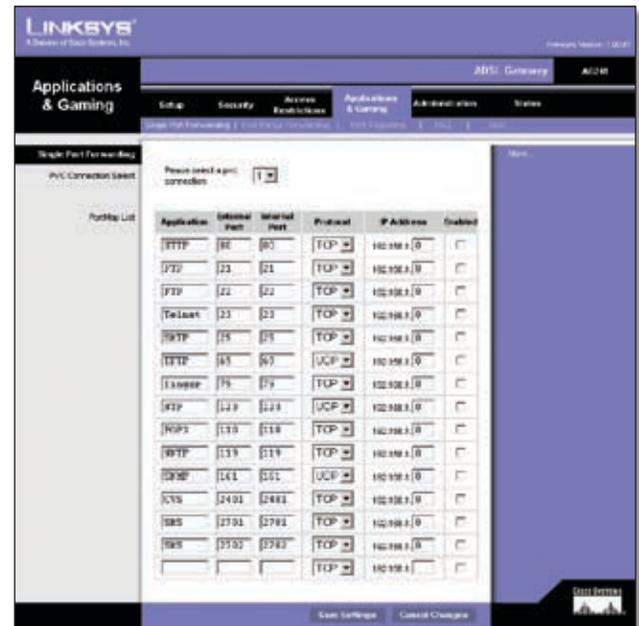
Applications & Gaming > Single Port Forwarding

When users send this type of request to your network via the Internet, the Gateway will forward those requests to the appropriate computer. Any computer whose port is being forwarded should have its DHCP client function disabled and should have a new static IP address assigned to it because its IP address may change when using the DHCP function.

Choose or enter the Application in the *Application* field. Then, enter the external and internal port numbers in the *External Port* and *Internal Port* fields. Select the type of protocol you wish to use for each application: TCP or UDP.

Enter the application's IP address in the *IP Address* field. Then click **Enabled** to enable forwarding for the chosen application.

When finished making your changes, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Applications & Gaming Tab > Port Range Forwarding

The *Port Range Forwarding* screen sets up public services on your network, such as web servers, ftp servers, e-mail servers, or other specialized Internet applications. (Specialized Internet applications are any applications that use Internet access to perform functions such as videoconferencing or online gaming. Some Internet applications may not require any forwarding.)

Applications & Gaming > Port Range Forwarding

When users send this type of request to your network via the Internet, the Gateway will forward those requests to the appropriate computer. Any computer whose port is being forwarded should have its DHCP client function disabled and should have a new static IP address assigned to it because its IP address may change when using the DHCP function.

To add an application, complete the following fields.

Application Enter the name you wish to give each application.

Start and End Enter the starting and ending numbers of the port you wish to forward.

Protocol Select the type of protocol you wish to use for each application: TCP, UDP, or Both.

IP Address Enter the IP address.

After you have entered all the information into the fields, click **Enable** to enable port range forwarding for that application.

When you have finished making changes, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Applications & Gaming Tab > Port Triggering

Port Triggering is used for special applications that can request a port to be opened on demand. For this feature, the Gateway will watch outgoing data for specific port numbers. The Gateway will remember the IP address of the computer that sends a transmission requesting data, so that when the requested data returns through the Gateway, the data is pulled back to the proper computer by way of IP address and port mapping rules.

Applications & Gaming > Port Triggering

To add an application, complete the following fields:

Application Enter the name of the application.

Triggered Range Enter the starting and ending port numbers of the triggered port range. Check with the Internet application documentation for the port number(s) needed.

Forwarded Range Enter the starting and ending port numbers of the forwarded port range. Check with the Internet application documentation for the port number(s) needed.

After you have entered all the information into the fields, click **Enable** to enable port triggering for that application.

When you have finished making changes, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Applications & Gaming Tab > DMZ

The *DMZ* screen allows one local user to be exposed to the Internet for use of a special-purpose service such as Internet gaming and videoconferencing through DMZ Hosting. DMZ hosting forwards all the ports for one computer at the same time, which differs from Port Range Forwarding, which can only forward a maximum of 10 ranges of ports.

Applications & Gaming > DMZ

DMZ Hosting This allows one local user to be exposed to the Internet for use of a special-purpose service such as Internet gaming and videoconferencing. To use this feature, select **Enabled**. To disable DMZ , select **Disabled**.

DMZ Host IP Address To expose one computer, enter the computer's IP address."

When you have finished making changes, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Applications & Gaming Tab > QoS

Quality of Service (QoS) ensures better service to high-priority types of network traffic, which may involve demanding, real-time applications, such as Internet phone calls or videoconferencing.

Applications & Gaming > QoS

Application-based QoS

Application-based QoS manages information as it is transmitted and received. Depending on the settings of the QoS screen, this feature will assign information a high or low priority for the five preset applications and three additional applications that you specify.

Enabled/Disabled To use application-based QoS, select **Enabled**. Otherwise, keep the default, **Disabled**.

High priority/Medium priority/Low priority For each application, select High priority (traffic on this queue shares 60% of total bandwidth), Medium priority (traffic on this queue shares 18% of total bandwidth), or Low priority (traffic on this queue shares 1% of total bandwidth).

FTP (File Transfer Protocol) A protocol used to transfer files over a TCP/IP network (Internet, UNIX, etc.). For example, HTML pages created for a website on a local machine are typically uploaded to a web server via FTP.

HTTP (HyperText Transport Protocol) This protocol's main function is to establish a connection with a web server and transmit HTML pages to the client web browser.

Telnet This terminal emulation protocol allows a user at a terminal or computer to log onto a remote device and run a program.

SMTP (Simple Mail Transfer Protocol) An e-mail protocol that defines the message format and the message transfer agent (MTA), which stores and forwards the mail.

POP3 (Post Office Protocol 3) A standard mail server commonly used on the Internet. It provides a message store that holds incoming e-mail and attachments until users log on and download it.

Specific Port# You can add three additional applications by entering their port numbers in the *Specific Port#* fields.

Advanced QoS

This setting allows you to specify traffic queue priority.

Fragment packet's size of AF and BE traffic to be equal to the size of EF traffic Select this option to fragmentize the packet sizes for AF (Assured Forwarding) and BE (Best Effort) queues so that it will increase the efficiency for transporting EF (expedited forwarding) queues. Enter a range between 68-1492 bytes.

Enable 802.1p P bits scheduling VLAN's VID Select this option to enable 802.1p P bits classification scheduling in the appropriate VLAN based on IEEE 802.1Q VLAN identification. Enter the VLAN VID (VLAN Identifier) number in the field.

When you have finished making changes, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Administration Tab > Management

When you click the **Administration** tab, you will see the Management screen. This screen allows you to change the Gateway's access settings as well as configure the SNMP (Simple Network Management Protocol) and UPnP (Universal Plug and Play) features.
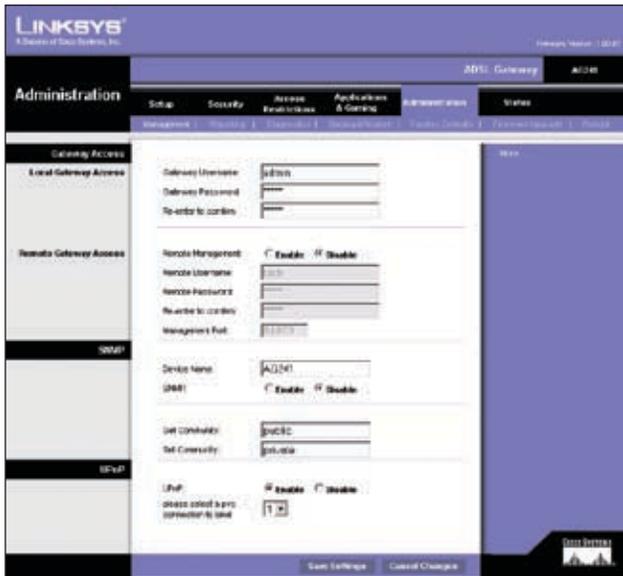
Administration > Management

Gateway Access

Local Gateway Access

To ensure the Gateway's security, you will be asked for your password when you access the Gateway's Web-based Utility. The default username and password is **admin**.

Gateway Username Enter the default admin. It is recommended that you change the default username to one of your choice.

Gateway Password and Re-enter to Confirm It is recommended that you change the default password to one of your choice. Enter a new Gateway password and then enter it again in the *Re-enter to Confirm* field.

Remote Gateway Access

This feature allows you to access the Gateway from a remote location, via the Internet.

> ✓ **NOTE:** Enabling remote Management allows anyone with access to your password to configure the Gateway from somewhere else on the Internet.

Remote Management To enable Remote Management, click **Enabled**.

Remote Username, Remote Password, and Re-enter to confirm Complete these fields to specify the account that will be used for remote management.

Management Port Enter the port number you will use to remotely access the Gateway.

SNMP

SNMP is a popular network monitoring and management protocol.

Device Name Enter the device name.

SNMP Click **Enable** to enable SNMP, or click **Disable** to disable SNMP.

UPnP

UPnP allows Windows XP to automatically configure the Gateway for various Internet applications, such as gaming and videoconferencing.

UPnP To enable UPnP, click **Enabled**.

Please select a pvc connection to bind Select a number from the drop-down menu.

When you have finished making changes, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Administration Tab > Reporting

The *Reporting* screen provides you with a log of all incoming and outgoing URLs or IP addresses for your Internet connection. It also provides logs for VPN and firewall events.
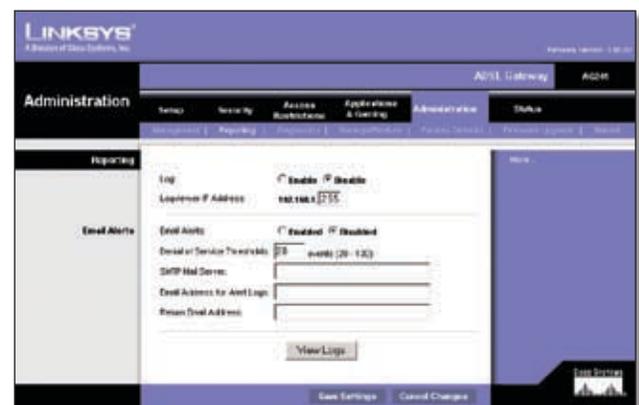
Administration > Reporting

Log To enable log reporting, click **Enabled**.

Logviewer IP Address Enter the IP address that will receive logs.

Email Alerts

E-Mail Alerts To enable E-Mail Alerts, click **Enabled**.

Denial of Service Thresholds Enter the thresholds of events you want to receive.

SMTP Mail Server Enter the IP address of the SMTP server.

E-Mail Address for Alert Logs Enter the e-mail address for alert logs.

Return E-Mail address Enter the address for the return e-mail.

To view the logs, click **View Logs** to display the *System Log* screen.

System Log

Click **Previous Page** or **Next Page** to display the previous page or next page in the system log. Click **pageRefresh** to update the log. Cleck **Clear** to delete all entries in the log.

When you have finished making changes, click **Save Settings** to save the changes, or click **Cancel Changes** to undo your changes.

The Administration Tab > Diagnostics

The *Diagnostics* screen provides the Ping diagnostic tool to allow you to check the connections of your network devices, including the connection to the Internet.

Administration > Diagnostics

Ping Test Parameters

Ping Target IP Enter the IP Address that you want to ping in the field. This can be either a local (LAN) IP or an Internet (WAN) IP address.

Ping Size Enter the size of the ping packets.

Number of Pings Enter the number of times that you want to ping.

Ping Interval Enter the ping interval in milliseconds.

Ping Timeout Enter the time in milliseconds.

Ping Result The results of the ping test will be shown here.

Click **Start Test** to start the Ping test. The results will be displayed in the *Ping Result* field.

The Administration Tab > Backup & Restore

The *Backup & Restore* screen allows you to back up and restore the Gateway's configuration file.

Administration > Backup & Restore

To back up the Router's configuration file, click **Backup**. Then follow the on-screen instructions.

To restore the Router's configuration file, click **Browse** to locate the file, and follow the on-screen instructions. After you have selected the file, click **Restore**.

The Administration Tab > Factory Defaults

The *Factory Defaults* screen allows you to restore the Gateway's configuration to its factory default settings.

Administration > Factory Defaults

If you wish to restore the Gateway to its factory default settings and lose all your settings, click **Yes**. Then click **Save Settings** to begin the restore process.

To cancel restoring the factory defaults, click **Cancel Changes**.

The Administration Tab > Firmware Upgrade

The *Firmware Upgrade* screen allows you to upgrade the Gateway's firmware. Do not upgrade the firmware unless you are experiencing problems with the Gateway or the new firmware has a feature you want to use.

Administration > Firmware Upgrade

Before upgrading the firmware, download the Gateway's firmware upgrade file from the Linksys Website, **www.linksys.com**. Then extract the file.

Upgrade From LAN

File Path Enter the name of the extracted firmware upgrade file, or click **Browse** to locate the file.

Upgrade After you have selected the appropriate file, click this button, and follow the on-screen instructions.

The Administration Tab > Reboot

The *Reboot* screen allows you to do a soft or hard reboot of your Gateway.

Administration > Reboot

Reboot Mode To reboot your Gateway, select **Hard** or **Soft**. Choose Hard to power cycle (i.e., turn off and turn on) the Gateway; choose Soft to restart it without a power cycle.

To begin the reboot process, click **Save Settings**. A dialog box will ask if you really want to reboot the device. Click **OK**.

Click **Cancel Changes** if you want to undo your changes.

The Status Tab > Gateway

The *Router* screen displays information about your Gateway and its WAN (Internet) Connections.

Status > Gateway

Gateway Information

Firmware Version This is the version number of the Gateway's current firmware.

MAC Address This is the Gateway's MAC address, as seen by your ISP.

Current Time This shows the time set on the Gateway.

Internet Connection

After you selectithe Internet connection number from the *Connection* drop-down menu, the following Internet connections are displayed:

Login Type This indicates the type of Internet connection you are using.

IP Address The Gateway's Internet IP address is displayed here.

Subnet Mask The Gateway's Subnet Mask is displayed here.

Default Gateway The Gateway's Default Gateway address is displayed here.

DNS1-3 Shown here are the DNS (Domain Name System) IP addresses currently used by the Gateway.

DHCP Renew Click **DHCP Renew** to replace your Gateway's current IP address with a new IP address.

DHCP Release Click **DHCP Release** to delete your Gateway's current IP address.

Click **Refresh** to update the on-screen information.

The Status Tab > Local Network

The Local Network screen displays information about the local network.

Status > Local Network

The Local Network information that is displayed here includes the local MAC Address, IP Address, Subnet Mask, DHCP Server, Start IP Address, and End IP Address. To view the DHCP Clients Table, click **DHCP Clients Table**.

MAC Address The MAC Address of the Gateway's local interface is displayed here.

IP Address This shows the Gateway's IP address, as it appears on your local network.

Subnet Mask This is the Gateway's Subnet Mask.

DHCP Server The status of the Gateway's DHCP server function is displayed here.

Start IP Address This is the starting IP address of the range of IP addresses used by devices on your local network.

End IP Address This is the ending IP address of the range of IP addresses used by devices on your local network.

DHCP Clients Table Click **DHCP Clients Table** to show the current DHCP Client data. The DHCP Clients Table displays the MAC address, computer name, and IP address of the network clients using the DHCP server. (This data is stored in temporary memory and changes periodically.) To delete a client from the DHCP server, select the client, then click **Delete**. Click **Refresh** to refresh the screen. Click **Close** to close the screen.
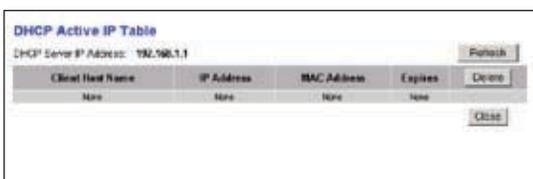
DHCP Clients Table

ARP/RARP Table Click **ARP/RARP Table** to show the current ARP/RARP Table. This table displays the MAC address and IP address of the network clients using ARP/RARP. Click **Refresh** to refresh the screen. Click **Close** to close the screen.
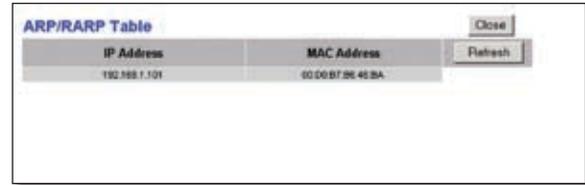
ARP/RARP Table

Click **Refresh** to refresh the *Local Network* screen.

The Status Tab > DSL Connection

The *DSL* screen displays status information for your DSL connection.

Status > DSL Connection

DSL Status

The DSL Connection information that is displayed includes the Status, Downstream Rate, and Upstream Rate.

PVC Connection

The PVC Connection information that is displayed includes Encapsulation, Multiplexing, QoS, Pcr Rate, Scr Rate, Autodetect, VPI, VCI, and PVC Status.

Click **Refresh** to refresh the screen.

Appendix A: Troubleshooting

I can't connect to the Internet.

1. Verify the proper LEDs are lit on the Gateway.
   - Make sure the Power LED has a steady green light and is not flashing.
   - Verify the Ethernet LED has a fairly steady green light. It will flash occasionally, indicating activity.
   - Verify the Signal Strength LEDs are lit.

2. Power down everything, and power on each device in the following order:
   - Gateway
   - PC

I cannot access the web-based utility after my computer goes into sleep mode.

Disconnect the power from the Gateway and reconnect it. You should be able to access the web-based utility once the Gateway has fully booted.

I need to modify the settings on my Gateway.

1. Open your web browser.
2. Type the gateway's IP address into the address bar (the default IP address is 192.168.1.1).
3. When prompted, type in the user name and password to your router (default is **admin**).
4. Click on the appropriate tab to change the settings.

WEB: If your questions are not addressed here, refer to the Linksys website, **www.linksys.com**

Appendix B:
Specifications

Model	AG241
Standards	IEEE 802.3u, IEEE 802.3, G.992.1 (G.dmt), G.992.2 (G.lite), ITU G.992.3, ITU G.992.5, ANSI T1.413i2, AG241-E1: Annex-B, AG241-DE: UR-2
Ports	Power, LINE (ADSL), Ethernet (1-4)
Buttons	One Reset Button, One On/Off Switch
Cabling Type	UTP CAT 5 or better, Phone Cable (POTS)
LEDs	Power, Ethernet (1-4), DSL, Internet

Environmental

Dimensions	186 x 48 x 154 mm
Weight	360 g
Power	External, 12V DC, 1A
Certifications	FCC Part 15B Class B, FCC Part 68, UL 1950, CE
Operating Temp.	0 to 40ºC
Storage Temp.	-20 to 70ºC)
Operating Humidity	10 to 85% noncondensing
Storage Humidity	5 to 90% noncondensing

Appendix C:
Warranty Information

Limited Warranty

Linksys warrants that this Linksys hardware product will be substantially free of defects in materials and workmanship arising under normal use during the Warranty Period, which begins on the date of purchase by the original end-user purchaser and lasts for the period specified below:

• Two (2) years for new product

• Ninety (90) days for refurbished product

This limited warranty is non-transferable and extends only to the original end-user purchaser. Your exclusive remedy and Linksys' entire liability under this limited warranty will be for Linksys, at its option, to (a) repair the product with new or refurbished parts, (b) replace the product with a reasonably available equivalent new or refurbished Linksys product, or (c) refund the purchase price of the product less any rebates. Any repaired or replacement products will be warranted for the remainder of the original Warranty Period or thirty (30) days, whichever is longer. All products and/or parts that are replaced become the property of Linksys.

This limited warranty shall apply in addition to any statutory or other rights which you may have under a contract of sale.

Exclusions and Limitations

This limited warranty does not apply if: (a) the product assembly seal has been removed or damaged, (b) the product has been altered or modified, except by Linksys, (c) the product damage was caused by use with non-Linksys products, (d) the product has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Linksys, (e) the product has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident, (f) the serial number on the Product has been altered, defaced, or removed, or (g) the product is supplied or licensed for beta, evaluation, testing or demonstration purposes for which Linksys does not charge a purchase price or license fee.

ALL SOFTWARE PROVIDED BY LINKSYS WITH THE PRODUCT, WHETHER FACTORY LOADED ON THE PRODUCT OR CONTAINED ON MEDIA ACCOMPANYING THE PRODUCT, IS PROVIDED "AS IS" WITHOUT ANY WARRANTY OF ANY KIND. Without limiting the foregoing, Linksys does not warrant that the operation of the product or software will be uninterrupted or error free. Also, due to the continual development of new techniques for intruding upon and attacking networks, Linksys does not warrant that the product, service, software or any equipment, system or network on which the product or software is used will be free of vulnerability to intrusion or attack. The product may include or be bundled with third party software or service offerings. This limited warranty shall not apply to such third party software or service offerings. This limited warranty does not guarantee any continued availability of a third party's service for which this product's use or operation may require.

TO THE EXTENT NOT PROHIBITED BY LAW, ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE WARRANTY PERIOD. ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF NON-INFRINGEMENT, ARE DISCLAIMED. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary by jurisdiction.

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL LINKSYS BE LIABLE FOR ANY LOST DATA, REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING NEGLIGENCE), ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT (INCLUDING ANY SOFTWARE), EVEN IF LINKSYS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL LINKSYS' LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT. The foregoing limitations will apply even if any warranty or remedy provided under this limited warranty fails of its essential purpose. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Obtaining Warranty Service

If you have a question about your product or experience a problem with it, please go to **www.linksys.com/support** where you will find a variety of online support tools and information to assist you with your product. If the product proves defective during the Warranty Period, contact Linksys Technical Support for instructions on how to obtain warranty service. The telephone number for Linksys Technical Support in your area can be found in the product User Guide and at **www.linksys.com**. Have your product serial number and proof of purchase on hand when calling. A DATED PROOF OF ORIGINAL PURCHASE IS REQUIRED TO PROCESS WARRANTY CLAIMS. If you are requested to return your product, you will be given a Return Materials Authorization (RMA) number. You are responsible for properly packaging and shipping your product to Linksys at your cost and risk. You must include the RMA number

and a copy of your dated proof of original purchase when returning your product. Products received without a RMA number and dated proof of original purchase will be rejected. Do not include any other items with the product you are returning to Linksys. Defective product covered by this limited warranty will be repaired or replaced and returned to you without charge. Customers outside of the United States of America and Canada are responsible for all shipping and handling charges, custom duties, VAT and other associated taxes and charges. Repairs or replacements not covered under this limited warranty will be subject to charge at Linksys' then-current rates.

Technical Support

This limited warranty is neither a service nor a support contract. Information about Linksys' current technical support offerings and policies (including any fees for support services) can be found at **www.linksys.com/support**

General

This limited warranty is governed by the laws of the jurisdiction in which the Product was purchased by you.

If any portion of this limited warranty is found to be void or unenforceable, its remaining provisions shall remain in full force and effect.

Please direct all inquiries to: Linksys, P.O. Box 18558, Irvine, CA 92623.

For more information, please contact us

www.linksys.com

Select your country, and then select SUPPORT/ TECHNICAL

For product returns:

Select your Country and then select CUSTOMER SUPPORT

Appendix D: Regulatory Information

FCC Statement

This product has been tested and complies with the specifications for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which is found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna

• Increase the separation between the equipment or devices

• Connect the equipment to an outlet other than the receiver's

• Consult a dealer or an experienced radio/TV technician for assistance

Safety Notices

• Caution: To reduce the risk of fire, use only No.26 AWG or larger telecommunication line cord.

• Do not use this product near water, for example, in a wet basement or near a swimming pool.

• Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Operation is subject to the following two conditions:

1. This device may not cause interference and

2. This device must accept any interference, including interference that may cause undesired operation of the device.

Avis d'Industrie Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Le fonctionnement est soumis aux conditions suivantes :

1. Ce périphérique ne doit pas causer d'interférences;

2. Ce périphérique doit accepter toutes les interférences reçues, y compris celles qui risquent d'entraîner un fonctionnement indésirable.

EC Declaration of Conformity (Europe)

In compliance with the EMC Directive 89/336/EEC, Low Voltage Directive 73/23/EEC, and Amendment Directive 93/68/EEC, this product meets the requirements of the following standards:

• EN55022 Emission

• EN55024 Immunity

• EN60950 Safety

User Information for Consumer Products Covered by EU Directive 2002/96/EC on Waste Electric and Electronic Equipment (WEEE)

This document contains important information for users with regards to the proper disposal and recycling of Linksys products. Consumers are required to comply with this notice for all electronic products bearing the following symbol:

English - Environmental Information for Customers in the European Union

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

Български (Bulgarian) - Информация относно опазването на околната среда за потребители в Европейския съюз

Европейска директива 2002/96/EC изисква уредите, носещи този символ върху изделието и/или опаковката му, да не се изхвърля т с несортирани битови отпадъци. Символът обозначава, че изделието трябва да се изхвърля отделно от сметосъбирането на обикновените битови отпадъци. Ваша е отговорността този и другите електрически и електронни уреди да се изхвърлят в предварително определени от държавните или общински органи специализирани пунктове за събиране. Правилното изхвърляне и рециклиране ще спомогнат да се предотвратят евентуални вредни за околната среда и здравето на населението последствия. За по-подробна информация относно изхвърлянето на вашите стари уреди се обърнете към местните власти, службите за сметосъбиране или магазина, от който сте закупили уреда.

Čeština (Czech) - Informace o ochraně životního prostředí pro zákazníky v zemích Evropské unie

Evropská směrnice 2002/96/ES zakazuje, aby zařízení označené tímto symbolem na produktu anebo na obalu bylo likvidováno s netříděným komunálním odpadem. Tento symbol udává, že daný produkt musí být likvidován odděleně od běžného komunálního odpadu. Odpovídáte za likvidaci tohoto produktu a dalších elektrických a elektronických zařízení prostřednictvím určených sběrných míst stanovených vládou nebo místními úřady. Správná likvidace a recyklace pomáhá předcházet potenciálním negativním dopadům na životní prostředí a lidské zdraví. Podrobnější informace o likvidaci starého vybavení si laskavě vyžádejte od místních úřadů, podniku zabývajícího se likvidací komunálních odpadů nebo obchodu, kde jste produkt zakoupili.

Dansk (Danish) - Miljøinformation for kunder i EU

EU-direktiv 2002/96/EF kræver, at udstyr der bærer dette symbol på produktet og/eller emballagen ikke må bortskaffes som usorteret kommunalt affald. Symbolet betyder, at dette produkt skal bortskaffes adskilt fra det almindelige husholdningsaffald. Det er dit ansvar at bortskaffe dette og andet elektrisk og elektronisk udstyr via bestemte indsamlingssteder udpeget af staten eller de lokale myndigheder. Korrekt bortskaffelse og genvinding vil hjælpe med til at undgå mulige skader for miljøet og menneskers sundhed. Kontakt venligst de lokale myndigheder, renovationstjenesten eller den butik, hvor du har købt produktet, angående mere detaljeret information om bortskaffelse af dit gamle udstyr.

Deutsch (German) - Umweltinformation für Kunden innerhalb der Europäischen Union

Die Europäische Richtlinie 2002/96/EC verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist, nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyceln trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung Ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

Eesti (Estonian) - Keskkonnaalane informatsioon Euroopa Liidus asuvatele klientidele

Euroopa Liidu direktiivi 2002/96/EÜ nõuete kohaselt on seadmeid, millel on tootel või pakendil käesolev sümbol ⌧, keelatud kõrvaldada koos sorteerimata olmejäätmetega. See sümbol näitab, et toode tuleks kõrvaldada eraldi tavalistest olmejäätmevoogudest. Olete kohustatud kõrvaldama käesoleva ja ka muud elektri- ja elektroonikaseadmed riigi või kohalike ametiasutuste poolt ette nähtud kogumispunktide kaudu. Seadmete korrektne kõrvaldamine ja ringlussevõtt aitab vältida võimalikke negatiivseid tagajärgi keskkonnale ning inimeste tervisele. Vanade seadmete kõrvaldamise kohta täpsema informatsiooni saamiseks võtke palun ühendust kohalike ametiasutustega, jäätmekäitlusfirmaga või kauplusega, kust te toote ostsite.

Español (Spanish) - Información medioambiental para clientes de la Unión Europea

La Directiva 2002/96/CE de la UE exige que los equipos que lleven este símbolo ⌧ en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.

Ελληνικά (Greek) - Στοιχεία περιβαλλοντικής προστασίας για πελάτες εντός της Ευρωπαϊκής Ένωσης

Σύμφωνα με την Κοινοτική Οδηγία 2002/96/EC, ο εξοπλισμός που φέρει αυτό το σύμβολο ⌧ στο προϊόν ή/και τη συσκευασία του δεν πρέπει να απορρίπτεται μαζί με τα μη διαχωρισμένα αστικά απορρίμματα. Το σύμβολο υποδεικνύει ότι αυτό το προϊόν θα πρέπει να απορρίπτεται ξεχωριστά από τα συνήθη οικιακά απορρίμματα. Είστε υπεύθυνος για την απόρριψη του παρόντος και άλλου ηλεκτρικού και ηλεκτρονικού εξοπλισμού μέσω των καθορισμένων εγκαταστάσεων συγκέντρωσης απορριμμάτων, οι οποίες ορίζονται από το κράτος ή τις αρμόδιες τοπικές αρχές. Η σωστή απόρριψη και ανακύκλωση συμβάλλει στην πρόληψη ενδεχόμενων αρνητικών επιπτώσεων στο περιβάλλον και την υγεία. Για περισσότερες πληροφορίες σχετικά με την απόρριψη του παλαιού σας εξοπλισμού, επικοινωνήστε με τις τοπικές αρχές, τις υπηρεσίες αποκομιδής απορριμμάτων ή το κατάστημα από το οποίο αγοράσατε το προϊόν.

Français (French) - Informations environnementales pour les clients de l'Union européenne

La directive européenne 2002/96/CE exige que l'équipement sur lequel est apposé ce symbole ⌧ sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L'élimination et le recyclage en bonne et due forme ont pour but de lutter contre l'impact néfaste potentiel de ce type de produits sur l'environnement et la santé publique. Pour plus d'informations sur le mode d'élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l'endroit où vous avez acheté le produit.

Italiano (Italian) - Informazioni relative all'ambiente per i clienti residenti nell'Unione Europea

La direttiva europea 2002/96/EC richiede che le apparecchiature contrassegnate con questo simbolo ⌧ sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifiuti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifiuti domestici. È responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.

Latviešu valoda (Latvian) - Ekoloģiska informācija klientiem Eiropas Savienības jurisdikcijā

Direktīvā 2002/96/EK ir prasība, ka aprīkojumu, kam pievienota zīme ⌧ uz paša izstrādājuma vai uz tā iesaiņojuma, nedrīkst izmest nešķirotā veidā kopā ar komunālajiem atkritumiem (tiem, ko rada vietēji iedzīvotāji un uzņēmumi). Šī zīme nozīmē to, ka šī ierīce ir jāizmet atkritumos tā, lai tā nenonāktu kopā ar parastiem mājsaimniecības atkritumiem. Jūsu pienākums ir šo un citas elektriskas un elektroniskas ierīces izmest atkritumos, izmantojot īpašus atkritumu savākšanas veidus un līdzekļus, ko nodrošina valsts un pašvaldību iestādes. Ja izmešana atkritumos un pārstrāde tiek veikta pareizi, tad mazinās iespējamais kaitējums dabai un cilvēku veselībai. Sīkākas ziņas par novecojuša aprīkojuma izmešanu atkritumos jūs varat saņemt vietējā pašvaldībā, atkritumu savākšanas dienestā, kā arī veikalā, kur iegādājāties šo izstrādājumu.

Lietuvškai (Lithuanian) - Aplinkosaugos informacija, skirta Europos Sąjungos vartotojams

Europos direktyva 2002/96/EC numato, kad įrangos, kuri ir kurios pakuotė yra pažymėta šiuo simboliu (įveskite simbolį), negalima šalinti kartu su nerūšiuotomis komunalinėmis atliekomis. Šis simbolis rodo, kad gaminį reikia šalinti atskirai nuo bendro buitinių atliekų srauto. Jūs privalote užtikrinti, kad ši ir kita elektros ar elektroninė įranga būtų šalinama per tam tikras nacionalinės ar vietinės valdžios nustatytas atliekų rinkimo sistemas. Tinkamai šalinant ir perdirbant atliekas, bus išvengta galimos žalos aplinkai ir žmonių sveikatai. Daugiau informacijos apie jūsų senos įrangos šalinimą gali pateikti vietinės valdžios institucijos, atliekų šalinimo tarnybos arba parduotuvės, kuriose įsigijote tą gaminį.

Malti (Maltese) - Informazzjoni Ambjentali għal Klijenti fl-Unjoni Ewropea

Id-Direttiva Ewropea 2002/96/KE titlob li t-tagħmir li jkun fih is-simbolu fuq il-prodott u/jew fuq l-ippakkjar ma jistax jintrema ma' skart muniċipali li ma ġiex isseparat. Is-simbolu jindika li dan il-prodott għandu jintrema separatament minn ma' l-iskart domestiku regolari. Hija responsabbiltà tiegħek li tarmi dan it-tagħmir u kull tagħmir ieħor ta' l-elettriku u elettroniku permezz ta' faċilitajiet ta' ġbir appuntati apposta mill-gvern jew mill-awtoritajiet lokali. Ir-rimi b'mod korrett u r-riċiklaġġ jgħin jipprevjeni konsegwenzi negattivi potenzjali għall-ambjent u għas-saħħa tal-bniedem. Għal aktar informazzjoni dettaljata dwar ir-rimi tat-tagħmir antik tiegħek, jekk jogħġbok ikkuntattja lill-awtoritajiet lokali tiegħek, is-servizzi għar-rimi ta' l-iskart, jew il-ħanut minn fejn xtrajt il-prodott.

Magyar (Hungarian) - Környezetvédelmi információ az európai uniós vásárlók számára

A 2002/96/EC számú európai uniós irányelv megkívánja, hogy azokat a termékeket, amelyeken, és/vagy amelyek csomagolásán az alábbi címke megjelenik, tilos a többi szelektálatlan lakossági hulladékkal együtt kidobni. A címke azt jelöli, hogy az adott termék kidobásakor a szokványos háztartási hulladékelszállítási rendszerektől elkülönített eljárást kell alkalmazni. Az Ön felelőssége, hogy ezt, és más elektromos és elektronikus berendezéseit a kormányzati vagy a helyi hatóságok által kijelölt gyűjtőredszereken keresztül számolja fel. A megfelelő hulladékfeldolgozás segít a környezetre és az emberi egészségre potenciálisan ártalmas negatív hatások megelőzésében. Ha elavult berendezéseinek felszámolásához további részletes információra van szüksége, kérjük, lépjen kapcsolatba a helyi hatóságokkal, a hulladékfeldolgozási szolgálattal, vagy azzal üzlettel, ahol a terméket vásárolta.

Nederlands (Dutch) - Milieu-informatie voor klanten in de Europese Unie

De Europese Richtlijn 2002/96/EC schrijft voor dat apparatuur die is voorzien van dit symbool op het product of de verpakking, niet mag worden ingezameld met niet-gescheiden huishoudelijk afval. Dit symbool geeft aan dat het product apart moet worden ingezameld. U bent zelf verantwoordelijk voor de vernietiging van deze en andere elektrische en elektronische apparatuur via de daarvoor door de landelijke of plaatselijke overheid aangewezen inzamelingskanalen. De juiste vernietiging en recycling van deze apparatuur voorkomt mogelijke negatieve gevolgen voor het milieu en de gezondheid. Voor meer informatie over het vernietigen van uw oude apparatuur neemt u contact op met de plaatselijke autoriteiten of afvalverwerkingsdienst, of met de winkel waar u het product hebt aangeschaft.

Norsk (Norwegian) - Miljøinformasjon for kunder i EU

EU-direktiv 2002/96/EF krever at utstyr med følgende symbol avbildet på produktet og/eller pakningen, ikke må kastes sammen med usortert avfall. Symbolet indikerer at dette produktet skal håndteres atskilt fra ordinær avfallsinnsamling for husholdningsavfall. Det er ditt ansvar å kvitte deg med dette produktet og annet elektrisk og elektronisk avfall via egne innsamlingsordninger slik myndighetene eller kommunene bestemmer. Korrekt avfallshåndtering og gjenvinning vil være med på å forhindre mulige negative konsekvenser for miljø og helse. For nærmere informasjon om håndtering av det kasserte utstyret ditt, kan du ta kontakt med kommunen, en innsamlingsstasjon for avfall eller butikken der du kjøpte produktet.

Polski (Polish) - Informacja dla klientów w Unii Europejskiej o przepisach dotyczących ochrony środowiska

Dyrektywa Europejska 2002/96/EC wymaga, aby sprzęt oznaczony symbolem znajdującym się na produkcie i/lub jego opakowaniu nie był wyrzucany razem z innymi niesortowanymi odpadami komunalnymi. Symbol ten wskazuje, że produkt nie powinien być usuwany razem ze zwykłymi odpadami z gospodarstw domowych. Na Państwu spoczywa obowiązek wyrzucania tego i innych urządzeń elektrycznych oraz elektronicznych w punktach odbioru wyznaczonych przez władze krajowe lub lokalne. Pozbywanie się sprzętu we właściwy sposób i jego recykling pomogą zapobiec potencjalnie negatywnym konsekwencjom dla środowiska i zdrowia ludzkiego. W celu uzyskania szczegółowych informacji o usuwaniu starego sprzętu, prosimy zwrócić się do lokalnych władz, służb oczyszczania miasta lub sklepu, w którym produkt został nabyty.

Português (Portuguese) - Informação ambiental para clientes da União Europeia

A Directiva Europeia 2002/96/CE exige que o equipamento que exibe este símbolo ⌧ no produto e/ou na sua embalagem não seja eliminado junto com os resíduos municipais não separados. O símbolo indica que este produto deve ser eliminado separadamente dos resíduos domésticos regulares. É da sua responsabilidade eliminar este e qualquer outro equipamento eléctrico e electrónico através das instalações de recolha designadas pelas autoridades governamentais ou locais. A eliminação e reciclagem correctas ajudarão a prevenir as consequências negativas para o ambiente e para a saúde humana. Para obter informações mais detalhadas sobre a forma de eliminar o seu equipamento antigo, contacte as autoridades locais, os serviços de eliminação de resíduos ou o estabelecimento comercial onde adquiriu o produto.

Română (Romanian) - Informaţii de mediu pentru clienţii din Uniunea Europeană

Directiva europeană 2002/96/CE impune ca echipamentele care prezintă acest simbol ⌧ pe produs şi/sau pe ambalajul acestuia să nu fie casate împreună cu gunoiul menajer municipal. Simbolul indică faptul că acest produs trebuie să fie casat separat de gunoiul menajer obişnuit. Este responsabilitatea dvs. să casaţi acest produs şi alte echipamente electrice şi electronice prin intermediul unităţilor de colectare special desemnate de guvern sau de autorităţile locale. Casarea şi reciclarea corecte vor ajuta la prevenirea potenţialelor consecinţe negative asupra sănătăţii mediului şi a oamenilor. Pentru mai multe informaţii detaliate cu privire la casarea acestui echipament vechi, contactaţi autorităţile locale, serviciul de salubrizare sau magazinul de la care aţi achiziţionat produsul.

Slovenčina (Slovak) - Informácie o ochrane životného prostredia pre zákazníkov v Európskej únii

Podľa európskej smernice 2002/96/ES zariadenie s týmto symbolom ⌧ na produkte a/alebo jeho balení nesmie byť likvidované spolu s netriedeným komunálnym odpadom. Symbol znamená, že produkt by sa mal likvidovať oddelene od bežného odpadu z domácností. Je vašou povinnosťou likvidovať toto i ostatné elektrické a elektronické zariadenia prostredníctvom špecializovaných zberných zariadení určených vládou alebo miestnymi orgánmi. Správna likvidácia a recyklácia pomôže zabrániť prípadným negatívnym dopadom na životné prostredie a zdravie ľudí. Ak máte záujem o podrobnejšie informácie o likvidácii starého zariadenia, obráťte sa, prosím, na miestne orgány, organizácie zaoberajúce sa likvidáciou odpadov alebo obchod, v ktorom ste si produkt zakúpili.

Slovenščina (Slovene) - Okoljske informacije za stranke v Evropski uniji

Evropska direktiva 2002/96/ES prepoveduje odlaganje opreme s tem simbolom ⌧ – na izdelku in/ali na embalaži z nesortiranimi komunalnimi odpadki. Ta simbol opozarja, da je treba izdelek zavreči ločeno od preostalih gospodinjskih odpadkov. Vaša odgovornost je, da to in preostalo električno in elektronsko opremo oddate na posebna zbirališča, ki jih določijo državne ustanove ali lokalne oblasti. S pravilnim odlaganjem in recikliranjem boste preprečili morebitne škodljive vplive na okolje in zdravje ljudi. Če želite izvedeti več o odlaganju stare opreme, se obrnite na lokalne oblasti, odlagališče odpadkov ali trgovino, kjer ste izdelek kupili.

Suomi (Finnish) - Ympäristöä koskevia tietoja EU-alueen asiakkaille

EU-direktiivi 2002/96/EY edellyttää, että jos laitteistossa on tämä symboli ⌧ itse tuotteessa ja/tai sen pakkauksessa, laitteistoa ei saa hävittää lajittelemattoman yhdyskuntajätteen mukana. Symboli merkitsee sitä, että tämä tuote on hävitettävä erillään tavallisesta kotitalousjätteestä. Sinun vastuullasi on hävittää tämä elektroniikkatuote ja muut vastaavat elektroniikkatuotteet viemällä tuote tai tuotteet viranomaisten määräämään keräyspisteeseen. Laitteiston oikea hävittäminen estää mahdolliset kielteiset vaikutukset ympäristöön ja ihmisten terveyteen. Lisätietoja vanhan laitteiston oikeasta hävitystavasta saa paikallisilta viranomaisilta, jätteenhävityspalvelusta tai siitä myymälästä, josta ostit tuotteen.

Svenska (Swedish) - Miljöinformation för kunder i Europeiska unionen

Det europeiska direktivet 2002/96/EC kräver att utrustning med denna symbol ⌧ på produkten och/eller förpackningen inte får kastas med osorterat kommunalt avfall. Symbolen visar att denna produkt bör kastas efter att den avskiljts från vanligt hushållsavfall. Det faller på ditt ansvar att kasta denna och annan elektrisk och elektronisk utrustning på fastställda insamlingsplatser utsedda av regeringen eller lokala myndigheter. Korrekt kassering och återvinning skyddar mot eventuella negativa konsekvenser för miljön och personhälsa. För mer detaljerad information om kassering av din gamla utrustning kontaktar du dina lokala myndigheter, avfallshanteringen eller butiken där du köpte produkten.

WEB: For additional information, please visit **www.linksys.com/international**

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The implementation was written so as to conform with Netscape's SSL.

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